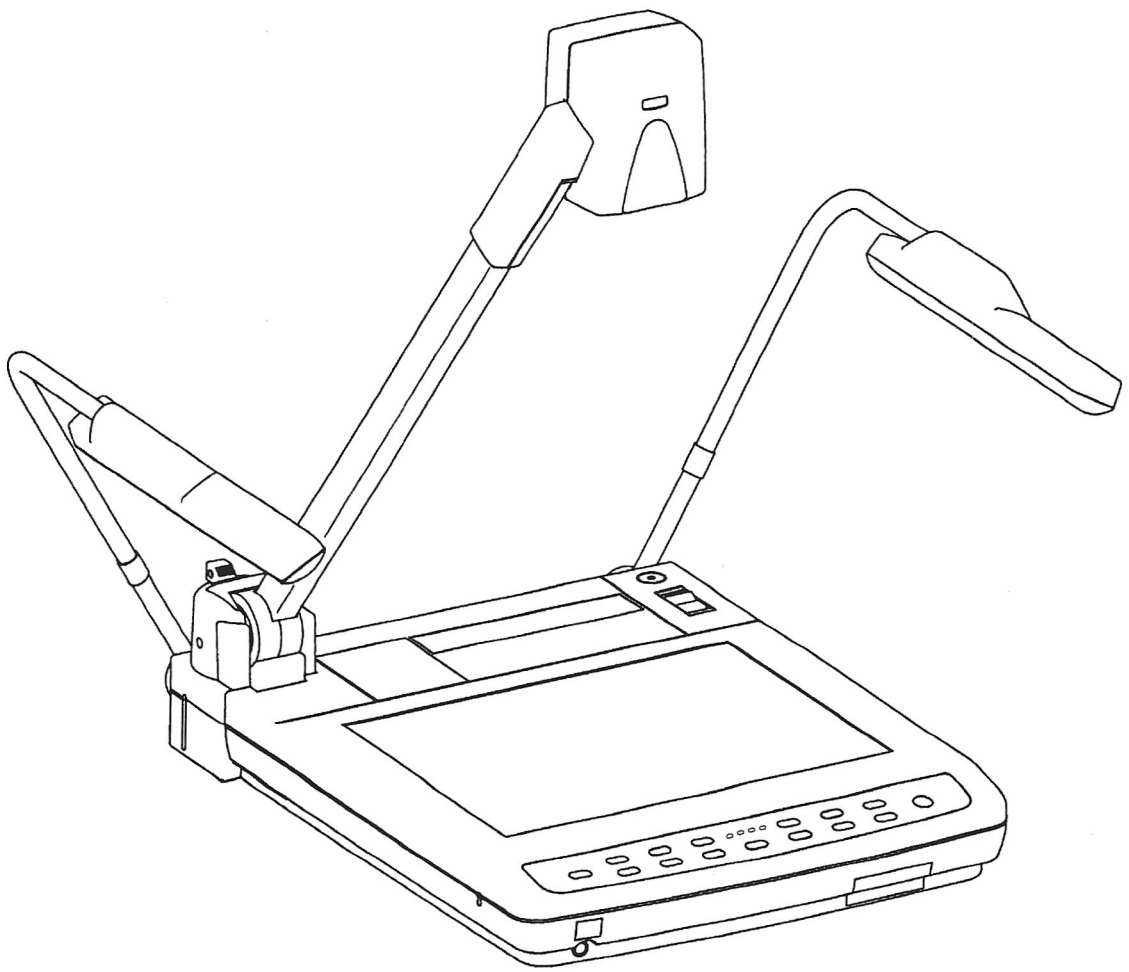
ELMO

VISUAL PRESENTER

HV-7000SX

INSTRUCTION MANUAL

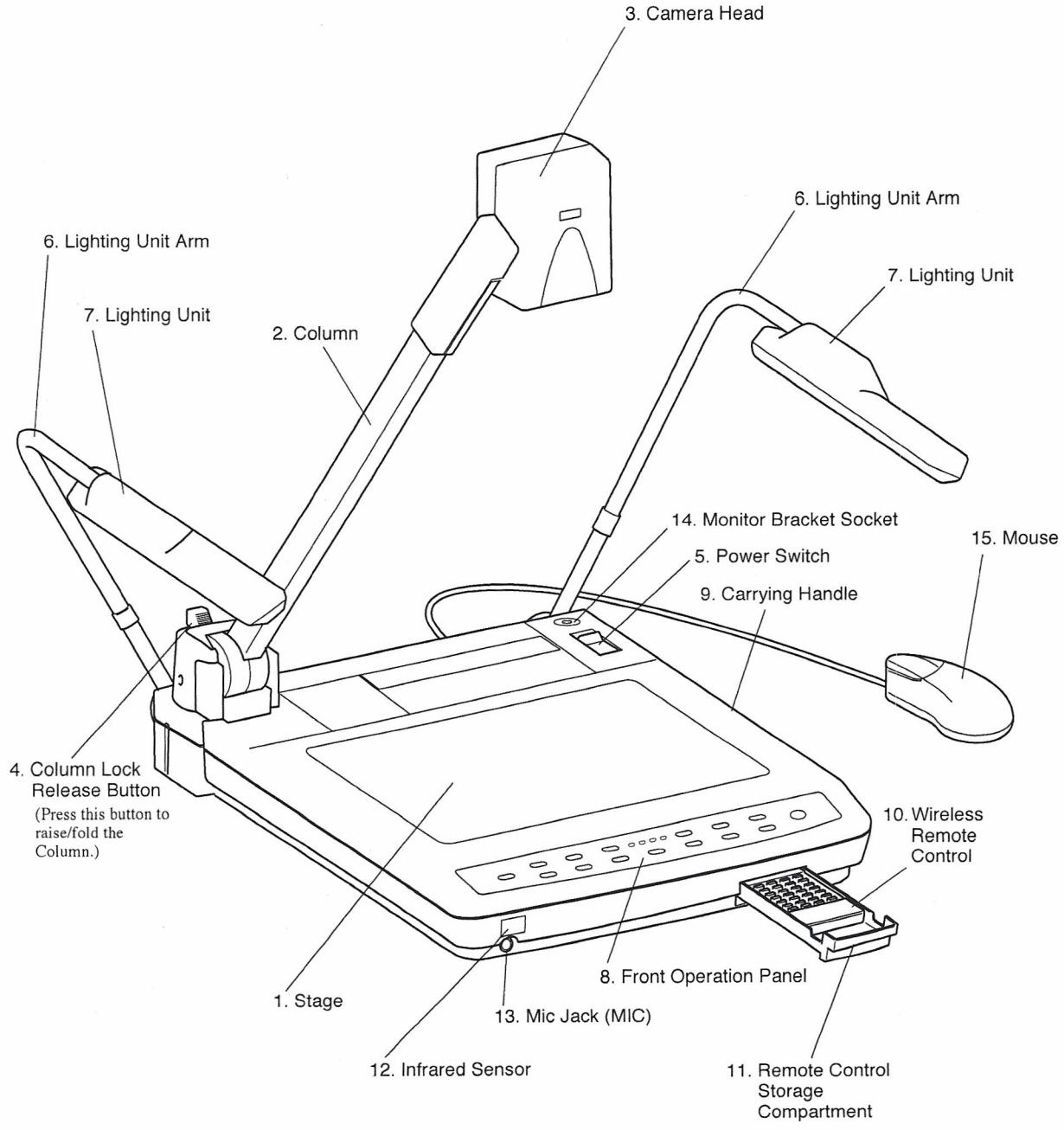


Please read this instruction manual carefully before using this Visual Presenter and keep it for future reference.

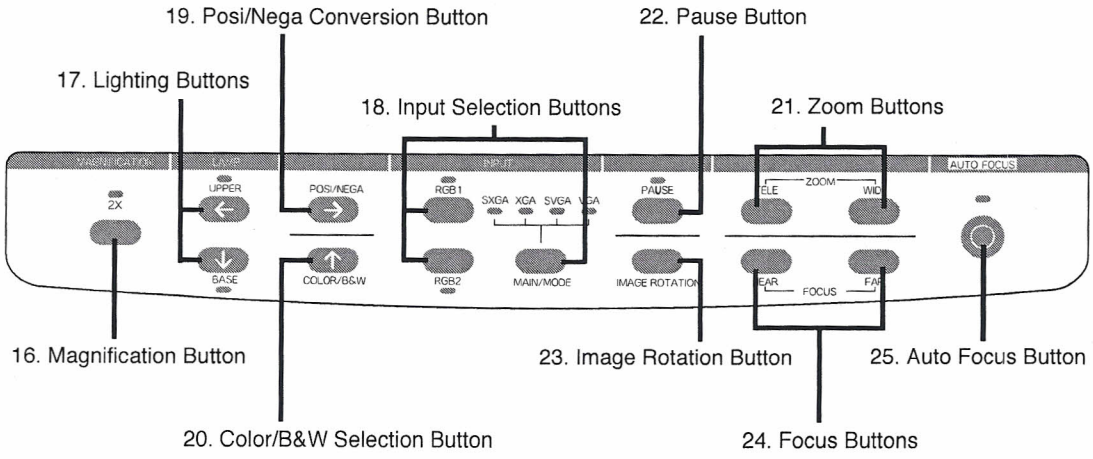
www.touchboards.com 205 Westwood Ave.Long Branch, NJ 07740 1-866-942-6273 Sales@touchboards.com

1. PART NAMES AND FUNCTIONS

○ Appearance

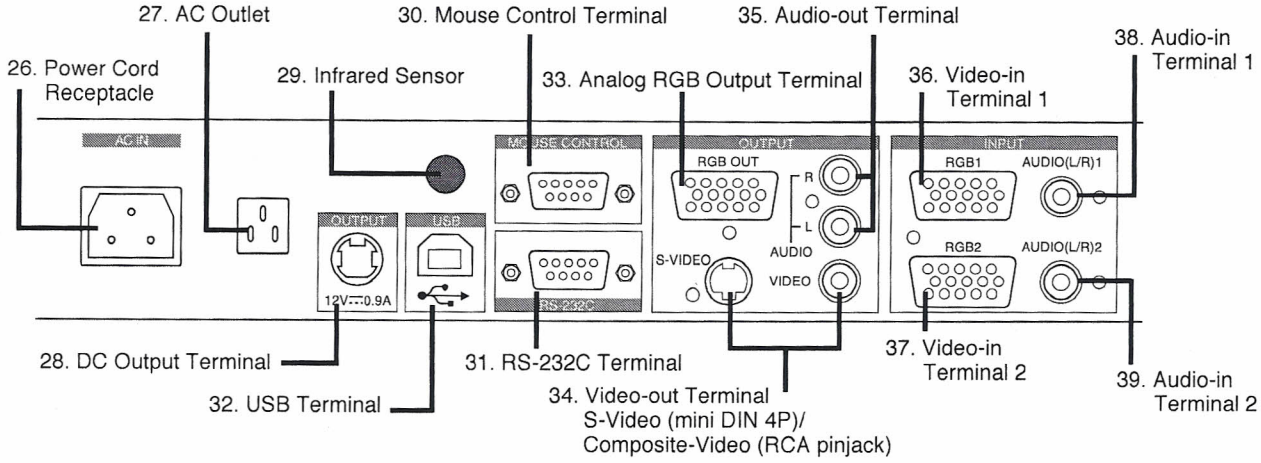


○ Front Operation Panel



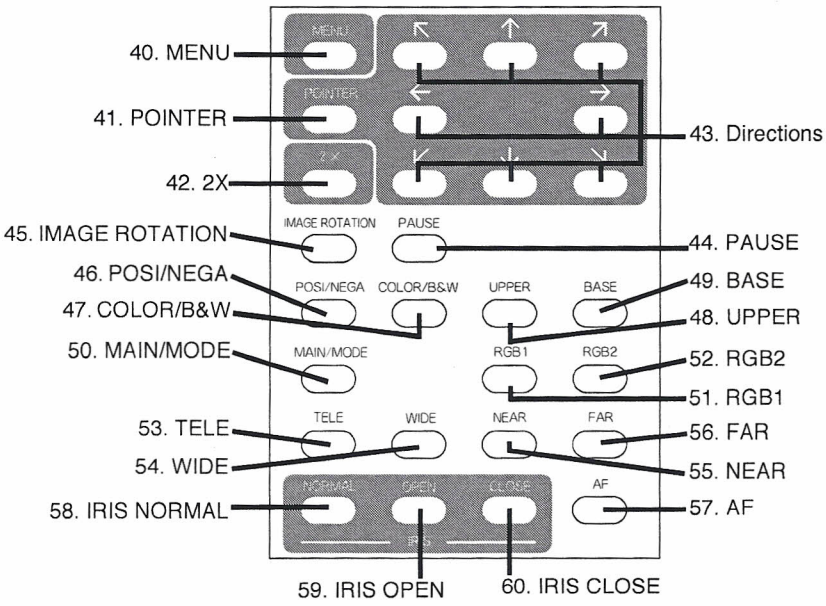
	Part Name	Function	Reference Page
16	Magnification Button	To electronically double the image size. The image is scrolled with the direction buttons.	P.26
17	Lighting Buttons [←], [→] (Direction Buttons)	To turn ON/OFF the lighting unit. When the image size is doubled, the image is scrolled in the arrow direction.	P.20
18	Input Selection Buttons Main/Mode Button	To change the input line. If the monitor is not compatible with SXGA, this mode can be switched in the order of SXGA → XGA → SVGA → VGA by changing the main body resolution.	P.20 P.21
19	Posi/Nega Conversion Button [→] (Direction Button)	To show negative films. When the image size is doubled, the image is scrolled in the arrow direction.	P.24
20	Color/B&W Selection Button [→] (Direction Button)	To present black-and-white material, such as documents. When the image size is doubled, the image is scrolled in the arrow direction.	P.24
21	Zoom Buttons	To change the image size.	P.22
22	Pause Button	To temporarily hold the image.	P.25
23	Image Rotation Button	To rotate the image. Each time this button is pressed, the image rotates counterclockwise by 90°.	P.24
24	Focus Buttons	To adjust focus (powered).	P.23
25	Auto Focus Button	To focus automatically. This is of one-shot auto focus system (FOCUSFREE)	P.22

○ Rear Panel



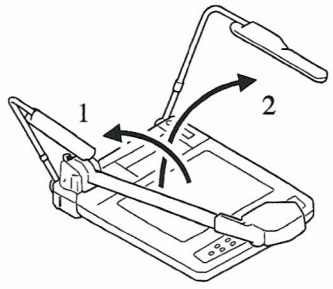
	Part Name	Function	Reference Page
26	Power Cord Receptacle **[AC IN]**	To connect the power cord.	
27	AC Outlet	To supply power up to 400W (Not interlocked with the power switch).	
28	DC Output Terminal **[OUTPUT]**	To output 12VDC. Any applicable equipment up to 0.9A can be connected. The optional LCD Color Monitor (LM-5011N) or ELMO Desk-top Presenter (HD-80XG) can be connected with the supplied DC cable. **Note:** Do not connect any equipment other than ELMO HD-80XG.	
29	Infrared Sensor	The light receiver of the wireless remote control. When operating the Presenter from behind, aim the wireless remote control at this light receiver.	P.11
30	Mouse Control Terminal **[MOUSE CONTROL]**	To connect the supplied mouse. **Note:** A serial type mouse is connected.	
31	RS-232C Terminal **[RS-232C]**	To connect a PC with an RS-232C cable to control the Presenter from the PC. **Note:** This terminal is disabled if the USB terminal is used for controlling the Presenter.	P.31
32	USB Terminal **[USB]**	To connect the supplied USB cable to control the image transfer and the Presenter by using the supplied CD-ROM [Image Mate for USB]. **Note:** This terminal is disabled if the RS-232C terminal is used for controlling the Presenter.	
33	Analog RGB Output Terminal **[OUTPUT·RGB OUT]**	To connect RGB input equipment, such as an LCD Projector and a Multi-SYNC Monitor, to output the image.	
34	Video-out Terminal **[OUTPUT·S-VIDEO/VIDEO]** S-Video (mini DIN 4P) Composite-Video (RCA pinjack)	To connect a NTSC/PAL conformable monitor, such as a TV monitor and the optional LCD Color Monitor (LM-5011N), to output the image.	
35	Audio-out Terminal **[OUTPUT·AUDIO]**	To connect audio input equipment to output the audio.	
36	Video-in Terminal 1 **[INPUT·RGB1]**	Video signal from this terminal is output through the analog RGB output terminal when input selection is set at RGB1.	
37	Video-in Terminal 2 **[INPUT·RGB2]**	Video signal from this terminal is output through the analog RGB output terminal when input selection is set at RGB2.	
38	Audio-in Terminal 1 **[INPUT·AUDIO (L / R)1]**	Audio signal from this terminal is output through the audio-out terminal when input selection is set at RGB1.	
39	Audio-in Terminal 2 **[INPUT·AUDIO (L / R)2]**	Audio signal from this terminal is output through the audio-out terminal when input selection is set at RGB2.	

○ Wireless Remote Control

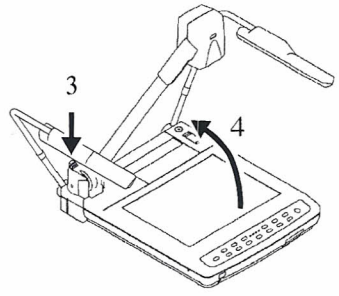


4. SETTING UP

(1) Unfold the lighting unit arms fully until they come to the deadend. Unfold arm 1 and then arm 2 as illustrated.



(2) Press the column lock release button, and raise the column until the column lock release button returns to the original position. Make sure that the column has been locked properly.



(3) Plug the power cord into the power cord receptacle of the Presenter and the AC outlet.

○ Connection to the monitor and the projector

Note: Be sure to turn OFF the power supply to all equipment before making any connections to protect the Presenter and all the connected equipment.

Note: Hold the cable plug part when connecting or disconnecting the cables.

● Connection to the RGB-in terminal

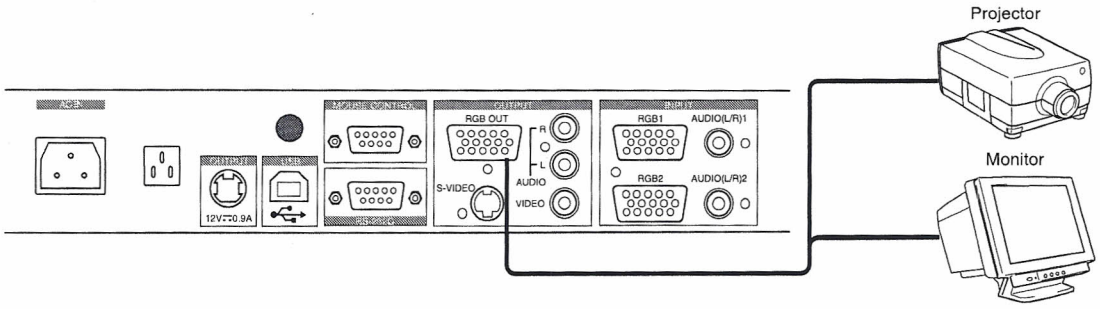
Connect the RGB output terminal of the Presenter to the RGB input terminal of the equipment with the supplied RGB cable or a RGB connection cable available on the market.

If the display image shifts from the center, manually adjust the horizontal/vertical positions through the connected equipment.

If vertical stripes appear on the screen with the use of video projector, it may be improved by manually adjusting the dot-clock frequency of the projector.

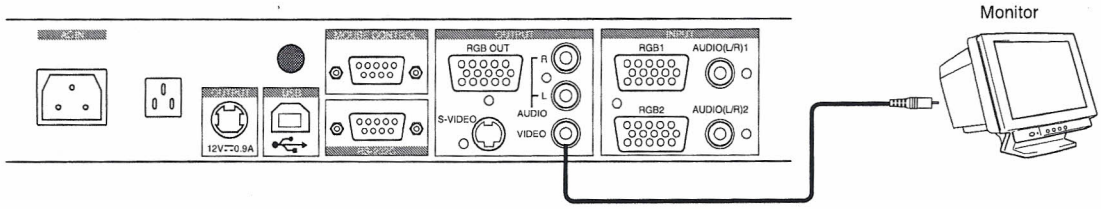
Note: The resolution of the Presenter can be selected according to the resolution of the equipment to be connected.

Reference Page • Resolution selection P.21



● Connection to the composite video-in terminal

Use the supplied RCA video/audio cable.

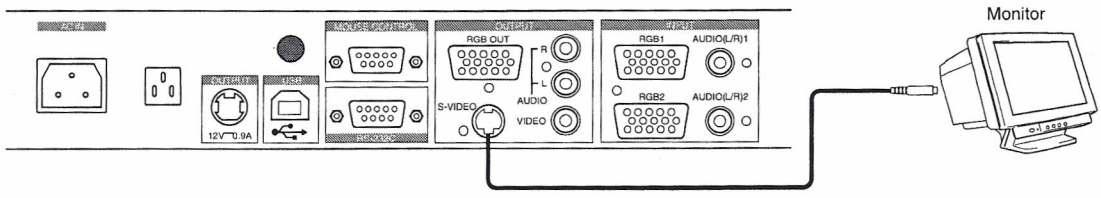


● Connection to the S-video-in terminal

Connect the S-video-out terminal (mini DIN 4P) of the Presenter to the S-video-in terminal of the monitor.

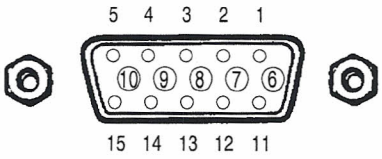
For the S-video mode, use the supplied 4P mini DIN cable or an S-video connection cable available on the market.

If the equipment to be used is provided with a Y/C separate connector, a conversion adapter is necessary.



○ RGB input signal

● Signal assignment



DSUB 15P shrinking terminal (Female)

Input signal

Video signal	Analog 0.7V(p-p)	75Ω
Horizontal synchronizing signal	TTL level	(positive / negative polarity)
Vertical synchronizing signal	TTL level	(positive / negative polarity)
Composite syncronizing signal	TTL level	(positive / negative polarity)

● Pin arrangement

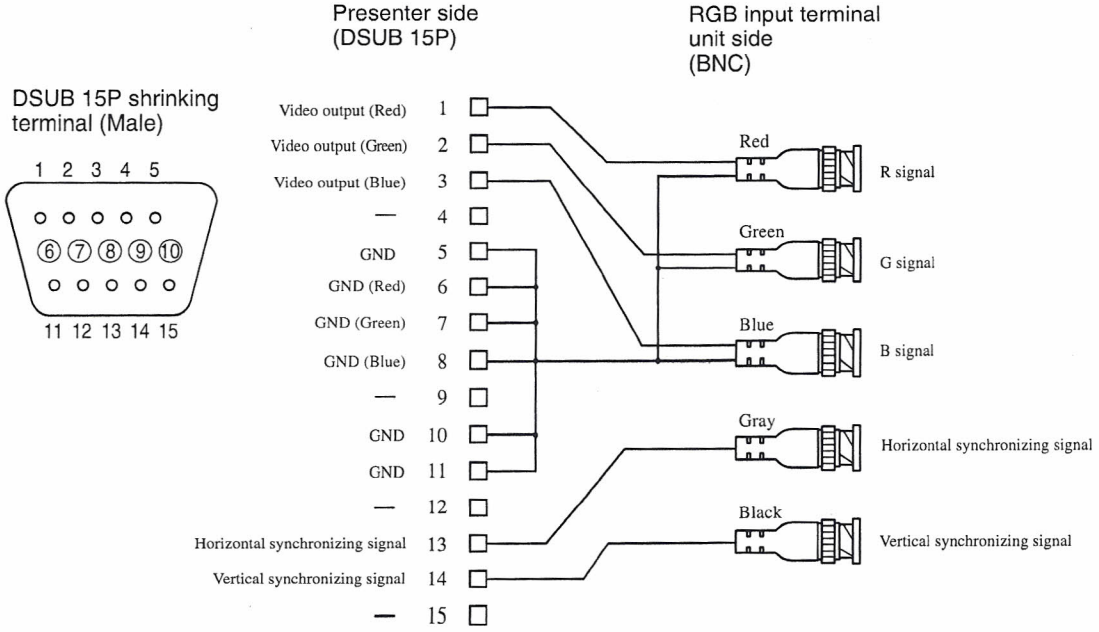
Pin No.	Name	Pin No.	Name	Pin No.	Name
1	Video input (Red)	6	GND (Red)	11	GND
2	Video input (Green)	7	GND (Green)	12	NC
3	Video input (Blue)	8	GND (Blue)	13	Horizontal synchronizing/
4	NC	9	NC		composite synchronizing signal
5	GND	10	GND	14	Vertical synchronizing signal
				15	NC

○ RGBoutput signal

● Signal assignment (DSUB 15P shrinking terminal)

Pin No.	Name	Pin No.	Name	Pin No.	Name
1	Video output (Red)	6	GND (Red)	11	GND
2	Video output (Green)	7	GND (Green)	12	NC
3	Video output (Blue)	8	GND (Blue)	13	Horizontal synchronizing signal
4	NC	9	NC	14	Vertical synchronizing signal
5	GND	10	GND	15	NC

● Connection of analog RGB cable



5. OPERATION PROCEDURES

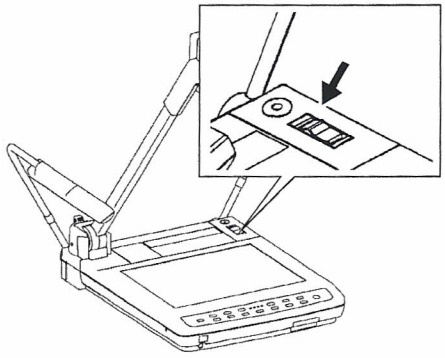
○ Simple steps for presenting printed material

(1) Turn ON the power switch.

Notes: · Before turning ON the power switch, connection to the monitor should have been completed.

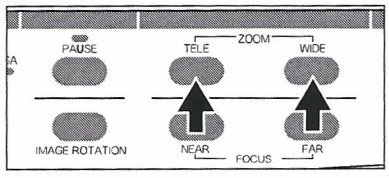
· The indication lamp (green LED) on the front operation panel shows the initial setting condition of each function of the Presenter.
After the power switch is turned ON, the indication lamp of the main camera only is illuminated.

· If the power switch is turned ON immediately after being turned OFF, the Presenter may not operate. For restarting, turn ON the power switch several seconds after turning OFF.

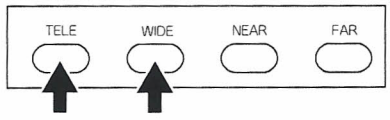


(2) Place the object on the stage. Adjust the image size according to the object size using the zoom buttons **[TELE]** and **[WIDE]** on the operation panel or wireless remote control, while watching the image on the monitor.

Front operation panel



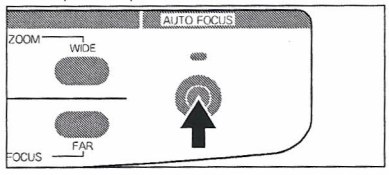
Wireless remote control



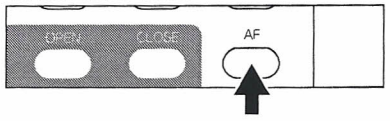
(3) Press the auto focus button **[AF]** on the front operation panel or remote control for focusing.

Note: The auto focus function works up to a height of approx. 10 cm above the stage surface.

Front operation panel



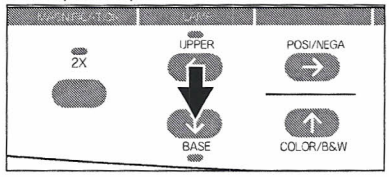
Wireless remote control



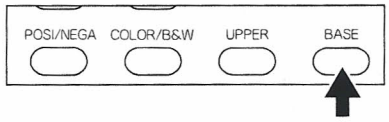
○ Simple steps for showing transparent material, such as overhead transparency or slide film

(1) Press the base button **[BASE]** on the front operation panel or wireless remote control. The indicator of the base button **[BASE]** will blink, and the built-in baselight will light up.

Front operation panel

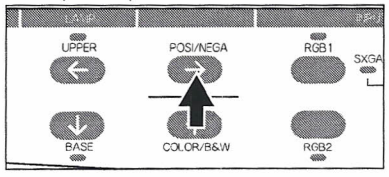


Wireless remote control

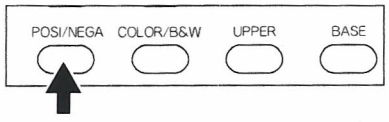


(2) To present a nega film, press the posi/nega conversion button **[POSI/NEGA]** on the front operation panel or wireless remote control to change the mode to nega.

Front operation panel

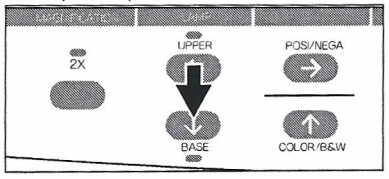


Wireless remote control

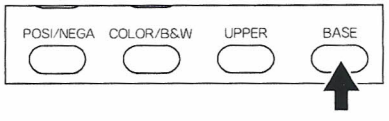


(3) To turn OFF the baselight, press the base button **[BASE]** on the front operation panel or wireless remote control.

Front operation panel



Wireless remote control



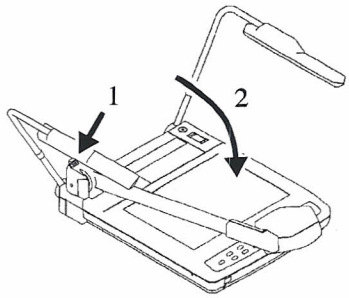
○ Storing the Presenter

Note: The Presenter can not be stored with the LCD monitor (optional) attached. Before storing, detach the LCD monitor (optional) and monitor bracket (optional), if connected.

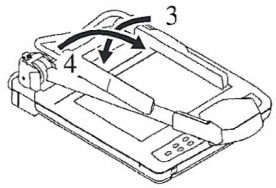
(1) Turn OFF the power switch, and unplug the power cord and the video cable.

(2) Press the column lock release button, and fold down the main column.

Note: The illustration shows the storage position of the column. Never apply excessive force to the column.



(3) Fold down the lighting unit arms 3 and 4. Be sure to fold down arm 3 first as per the illustration.



6. VARIOUS FUNCTIONS

○ Lighting

The upper lighting unit for presenting material such as printed matter and 3-D object, and the baselight for presenting transparent material, such as slide, and negative film, are built in the Presenter.

Depending on the material to be presented, press the button **[UPPER]** or **[BASE]** on the front operation panel or wireless remote control. The indication lamp will blink for a few seconds, and then the fluorescent lamp will light up.

To turn OFF the lamp, press the button for the respective lamp.

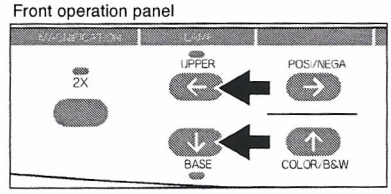
It has been so set before shipment that the lighting unit lights up when the power supply is turned ON.

Notes: · It is impossible to have the upper lighting unit and the baselight lit up together.

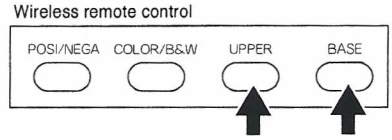
· When the lightness of the material surface is not sufficiently high or a 3-D object is presented, a sharp image with good color rendering can be obtained with the upper lighting unit.

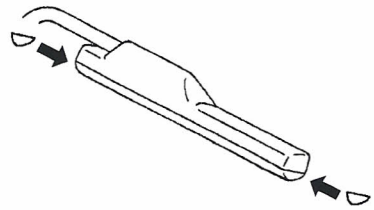
· To reduce glare, attach enclosed stickers, as shown, to the outside ends, of toplights.

Front operation panel



Wireless remote control





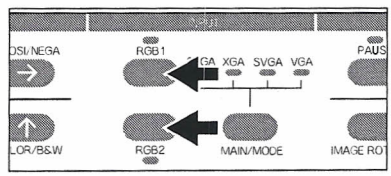
○ Input selection

The respective images from two different AV sources, such as PC and ELMO Presenters [HD-80XG], can be alternately presented on the Monitor by simply selecting the AV source by pressing the input selection button without changing cable connections.

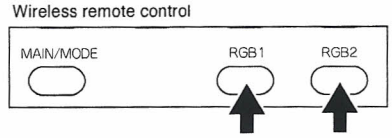
Press the input selection button **[RGB1] / [RGB2]** on the front operation panel or wireless remote control.

When the input is selected, the signal is outputted as shown in the following page.

Front operation panel



Wireless remote control



● **Table of video-in/out terminal selections**

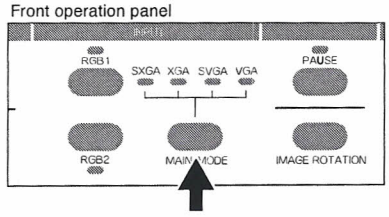
Input \ Output signal			Video-out terminal			Audio-out terminal	
			RGB	Composite	S-VIDEO	L	R
INTERNAL	Main camera video signal		○	○	○	—	—
	Mic.	Monaural	—	—	—	○	○
RGB1	Main cameravideo signal		—	○	○	—	—
	Ext. video signal1	RGB1	○	—	—	—	—
	Ext. audio signal1	Stereo1 (L / R)	—	—	—	○	○
	Mic.	Monaural	—	—	—	○	○
RGB2	Main cameravideo signal		—	○	○	—	—
	Ext. video signal2	RGB2	○	—	—	—	—
	Ext. audio signal2	Stereo2 (L / R)	—	—	—	○	○
	Mic.	Monaural	—	—	—	○	○

Note: The Composite-Video Terminal and the S-Video Terminal receive the image from the main camera regardless of the input selection.

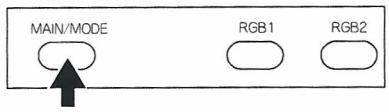
○ Resolution selection

When the built-in camera/mode button **[MAIN/MODE]** on the front operation panel or wireless remote control is pressed, the resolution of the built-in camera is switched.
If the monitor is not compatible with SXGA, the resolution of the built-in camera is switched to other in the order of SXGA → XGA → SVGA → VGA each time the built-in camera/mode button **[MAIN/MODE]** is pressed.
Then, the LED of the selected resolution of all 4 LEDs on the built-in camera/mode button **[MAIN/MODE]** on the front operation panel lights up to indicate the selected resolution.

Front operation panel



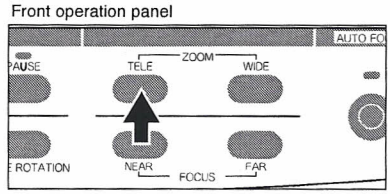
Wireless remote control



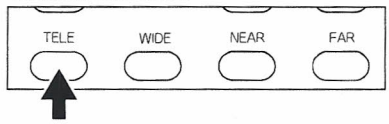
○ Zoom

Press the zoom button **[TELE]** on the front operation panel or wireless remote control, and the image will gradually be enlarged.

Front operation panel

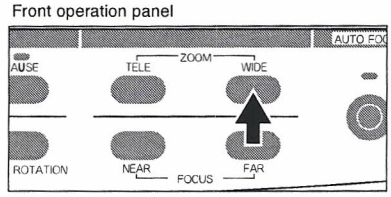


Wireless remote control

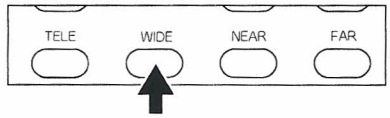


Press the zoom button **[WIDE]** on the front operation panel or wireless remote control, and the image will be gradually reduced.

Front operation panel



Wireless remote control



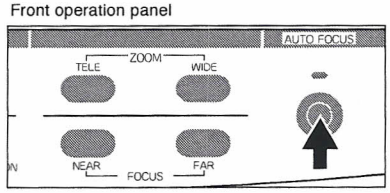
○ Focus

● Auto Focus

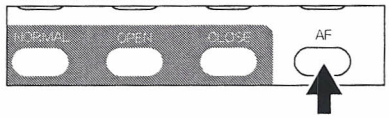
To operate Auto-Focus, press the auto focus button **[AF]** on the front operation panel or wireless remote control, and the Auto-Focus will be activated.

While the auto-focus is in operation, the indication lamp blinks until the object is brought into focus.

Front operation panel

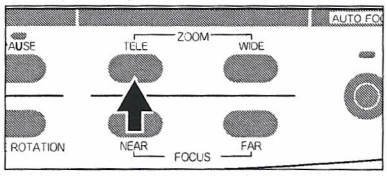


Wireless remote control

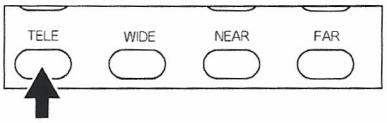


The Presenter features a one-push auto focus function. Once focusing is completed, the auto focus function is released, and the focused position maintains unchanged. (FOCUSFREE)
To obtain sharper image, zoom in on the object in the auto-focus mode while pressing the zoom button **[TELE]** on the front operation panel or wireless remote control.

Front operation panel



Wireless remote control

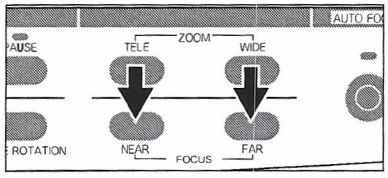


However, the objects listed below may not be brought into focus in the auto focus mode. In these cases, use the manual focus mode.

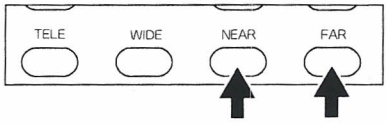
- Objects bearing little contrast
- Objects with fine repeated patterns, such as lateral stripes and cross stripes
- Objects glittering or reflecting strong light
- Objects with bright background, or excessive contrast
- Objects in a dark picture plane
- Objects located near and far away at the same time
- Objects in motion

If the focus button **[NEAR]** or **[FAR]** on the front operation panel or wireless remote control is pressed during the auto focus, the auto focus will be released.

Front operation panel



Wireless remote control



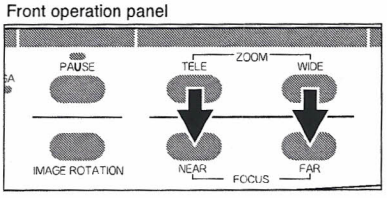
Notes:
- The auto focus functions up to approx. 10cm above the stage surface.
- If the camera head gets heavy shock by accident, there is a possibility of out of focus. In such a case, once turn the power OFF and then re-set to ON.
- It may take some time to bring the camera into focus in the auto focus mode.
  Roughly bring the camera into focus manually and then press the auto focus button **[AF]**.

● Powered Manual Focus

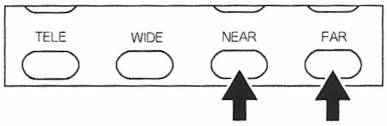
To focus on any part of the material, such as 3-D material, press the focus button **[NEAR]** or **[FAR]** on the front operation panel or wireless remote control.

Note: The manual focus works up to approx. 10cm above the stage surface.

Front operation panel



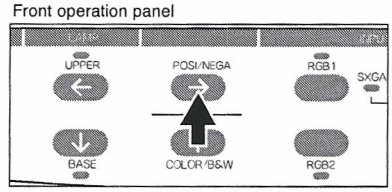
Wireless remote control



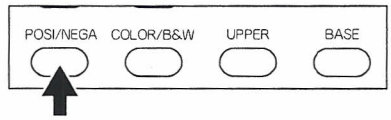
○ Posi/Nega conversion

To show a negative film.
Press the posi/nega conversion button **[POSI / NEGA]** on the front operation panel or wireless remote control, and the image will be converted accordingly.
To return to the normal (POSI) mode, press the posi/nega conversion button **[POSI / NEGA]** again.

Front operation panel



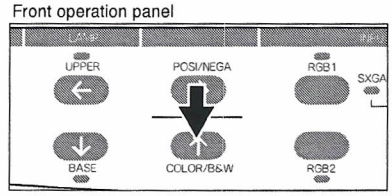
Wireless remote control



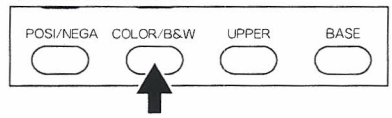
○ Color/B&W selection

To present the B&W (Black&White) material such as documents in sharper image with no color blur on the monitor, set to color mode for normal use.
To change to B&W mode, press the color/B&W selection button **[COLOR / B&W]** on the front operation panel or wireless remote control.
To return to normal (COLOR) mode, press the color/B&W selection button **[COLOR / B&W]** again.

Front operation panel



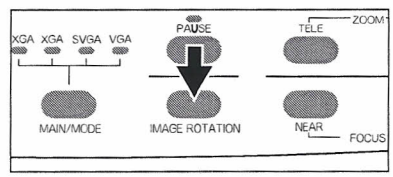
Wireless remote control



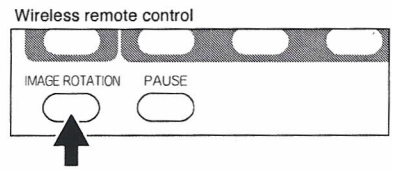
○ Image rotation

When the image rotation button **[IMAGE ROTATION]** on the Front Operation Panel or Wireless Remote Control is pressed, the image rotates.
Each time the image rotation button **[IMAGE ROTATION]** is pressed, the image rotates counterclockwise by 90°.

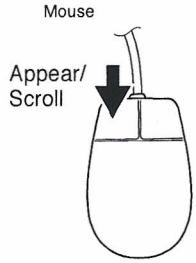
When the image is rotated by 90° or 270° , the screen can be scrolled in the up/down direction. For further information, refer to "Video pointer" on P.25.



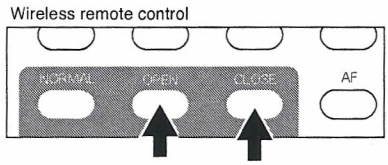
Wireless remote control



Mouse



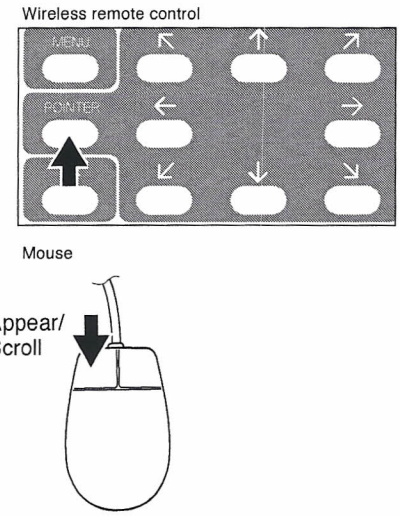
○ Iris



The iris can be manually adjusted.
To open the iris, press the manual iris button **[OPEN]**.
To close the iris, press the manual iris button **[CLOSE]**.
In the manual mode, the iris is fixed regardless of the change in lightness of object.
The initial setting is "auto iris."

Note: For the information of adjusting by means of the OSD, see P.29 .

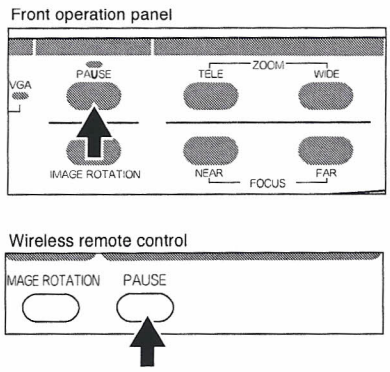
○ Video pointer



When the pointer button **[POINTER]** on the wireless remote control is pressed or the left button of the mouse is clicked, the video pointer appears.
The video pointer is moved by using the direction buttons on the wireless remote control or front operation panel of the Presenter or by clicking and dragging the left button of the mouse.
When the pointer button **[POINTER]** on the wireless remote control is pressed or the left button of the mouse is clicked, the video pointer disappears.

Note: The video pointer is switched to the moving pointer when the image is electronically magnified or rotated (90˚ / 270˚) and the screen is scrolled.

○ Pause



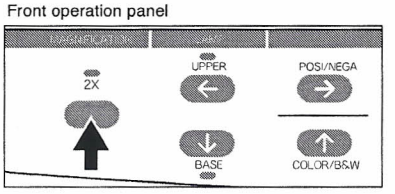
When the pause button **[PAUSE]** on the front operation panel or wireless remote control is pressed, the image of the main camera is stored in pause mode.
When the pause button **[PAUSE]** is pressed again, the pause mode is released.

Note: If the image is paused, the pause is released by switching the resolution or rotating the image. When the image is paused, Color/B&W switching is disabled.

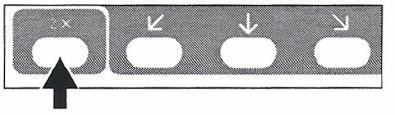
○ Enlarging the image

To double the image.
When the button **[2X]** on the front operation panel or wireless remote control is pressed or the right button of the mouse is clicked, the image is doubled, and at the same time, the scrolling (moving) pointer appears.
The screen is scrolled (moved) by using the direction buttons or by clicking and dragging the left button of the mouse. The screen can be scrolled within the shooting area of the built-in camera.
When the pointer is placed at the corner of the screen, the image is scrolled toward the corner.
The image can be enlarged only within the shooting area of the main camera.

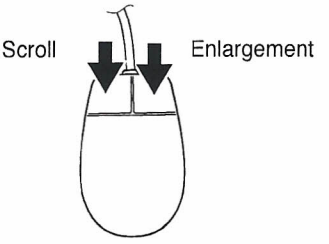
Front operation panel



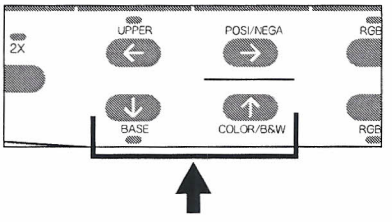
Wireless remote control



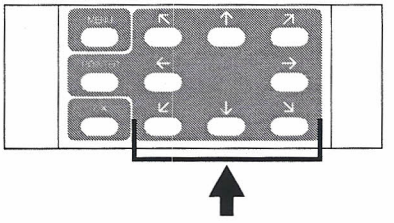
Mouse



Front operation panel

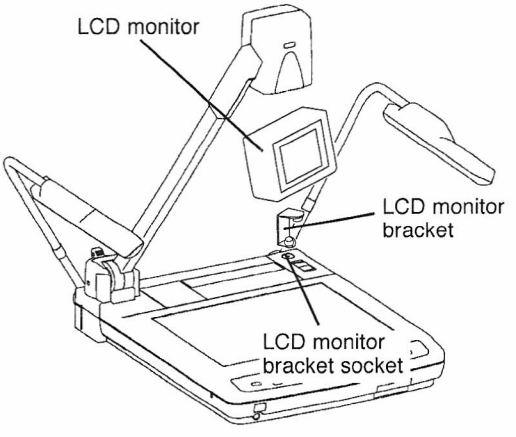


Wireless remote control



○ LCD monitor bracket socket

The LCD monitor bracket socket is used for attaching an LCD monitor (optional) with an LCD monitor bracket (optional). For the connection method and cables, refer to the instruction manual of the LCD monitor.



○ About the PC software "Image Mate for USB"

When the application [Image Mate for USB] is installed, the following operation are enabled:

- Image data transfer to the PC
- Operation of the Presenter by the PC

For further detail, refer to the installation manual for the application [Image Mate for USB] and the file [manual.pdf] in the CD-ROM.

Reference Page · USB/RS-232C selection P.30

9. TROUBLESHOOTING HINTS

Symptom	Possible cause/countermeasure
No Images on TV monitor	• Cable is not properly connected to the video-in terminal of monitor. • The power cord is disconnected from the wall AC outlet. • The plug is disconnected from the power cord receptacle of the Presenter. • The power switch is not turned ON. • Zoom is set at TELE to display only white/black part of the material. • The switch is turned ON immediately after it is turned OFF. In this case, the Presenter may not start. Wait several seconds after turning OFF the power switch, and then turn ON the power switch.
Out of focus	• The object is too close to the lens. Check if it does not stand higher than 10cm above the stage surface. • Zoom is set at TELE after focusing at WIDE angle. Focus on the point of max. TELE. • In the auto-focus, focusing is difficult in some cases.
The lamp is not quickly turned ON	• For protection purposes, the lamp is turned ON after preheating for 2 seconds. This is not a fault.
Image is too dark	• The ambient light is not sufficient. Press the upper lighting unit button **[UPPER]** to turn ON the upper lamp.
Moire pattern appears on the screen image	• This is caused by the interference fringe between the meshed pattern of the object and the CCD elements. This is normal. This may be reduced by changing the projecting range. • Vertical stripes may appear on the liquid crystal projector screen. This can be reduced by manually adjusting the dot clock frequency on the projector side. (Refer to P.13)
Brightness tone is off the setting	• This may be reduced by switching the gamma setting.

If the trouble still remains after checking the above, consult your dealer or an authorized ELMO service center.